



LL31 12-0016 Sequence Listings.ST25.txt
SEQUENCE LISTING

<110> ~~INVENTOR~~ MILLIS, LLC
PURDUE RESEARCH FOUNDATION

<120> PORCINE LEPTIN PROTEIN, ANTISENSE AND ANTIBODY

<130> LL31.12-0016

<140> US 09/932,888
<141> 2001-08-20

<150> US 08/692,922
<151> 1996-07-31

<160> 11

<170> PatentIn version 3.2

<210> 1
<211> 5917
<212> DNA
<213> Sus scrofa

<220>
<221> gene
<222> (1)..(5917)
<223> Nucleotide sequence of the porcine leptin gene. CDS Location:
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<220>
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<222> (2943)..(2944)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (2983)..(2983)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (3037)..(3037)
<223> n is a, c, g, or t

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atgccgccgt ggagacacca gcgggctgcc gtgagactaa tggagaggac agtaacgtta 420
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LL31 12-0016 Sequence Listings.ST25.txt

gcattatcca atttgatcct cataaaagcc tggagatgtg tatattgtgg tggatggagg	540
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caaaccagac ctcaaaagcc tgcctgtttg ctcatgcccc ctgccccgac tgcccactct	660
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ctccccaagg aatgcttttc attaacatat gtctaggtaa tgaattatct tgactctgag	780
gaggccatag cacatgccgt aacgcgacag ctcccttgat ctgcatctga ggctgtggct	840
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gggactctgt agagttaggg gtgctccgta agttttatgg tgcgtctgct cttctctgcc	2040
ctagacttag agtcgccact ctttccattc ttctgctcac agtcaaagtc ataggtcagg	2100
ggttaattcc caccttcaca gaaatcaaat gtcctttcaa tagttaatct tccaataagc	2160
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cgacggaaac agatccgact cagaacctag agacagggtt gatccctggc tttgtcagtg	2400

LL31 12-0016 Sequence Listings.ST25.txt

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cttttcaatc	tgcccagagc	agtctggaga	cttccgcata	tcctggccac	tctgagtttc	2760
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aacagctgcg	catgacagat	ccagcgtgtc	ccagcctgtg	tggtgcaggg	agtgaygctg	2940
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tattctgggt	ggatttgaag	caaaacacca	gcctttccag	gctctctggg	gtcagccggg	4260

LL31 12-0016 Sequence Listings.ST25.txt

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gaagtgtttg	ctggaagagc	ggagtttcca	ggctgatttt	gcaggaggtg	aggggaagtgg	5880
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<210> 2
 <211> 501
 <212> DNA
 <213> Sus scrofa

LL31 12-0016 Sequence Listings.ST25.txt

<220>

<221> CDS

<222> (1)..(501)

<223> Nucleotide sequence of the entire coding region of porcine leptin (i.e. signal peptide and secreted protein)

<400> 2

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Met	Arg	Cys	Gly	Pro	Leu	Cys	Arg	Phe	Leu	Leu	Ala	Leu	Ala	Tyr	Leu	
1				5					10					15		

tcc	tac	gtt	gaa	gcc	gtg	ccc	atc	tgg	aga	gtc	cag	gat	gac	acc	aaa	96
Ser	Tyr	Val	Glu	Ala	Val	Pro	Ile	Trp	Arg	Val	Gln	Asp	Asp	Thr	Lys	
			20					25					30			

acc	ctc	atc	aag	acg	att	gtc	acc	agg	atc	agt	gac	att	tca	cac	atg	144
Thr	Leu	Ile	Lys	Thr	Ile	Val	Thr	Arg	Ile	Ser	Asp	Ile	Ser	His	Met	
		35					40					45				

cag	tct	gtc	tcc	tcc	aaa	cag	agg	gtc	acc	ggg	ttg	gac	ttc	atc	cct	192
Gln	Ser	Val	Ser	Ser	Lys	Gln	Arg	Val	Thr	Gly	Leu	Asp	Phe	Ile	Pro	
	50					55					60					

ggg	ctc	cat	cct	gtc	ctg	agt	ttg	tcc	aag	atg	gac	cag	acc	ctg	gcg	240
Gly	Leu	His	Pro	Val	Leu	Ser	Leu	Ser	Lys	Met	Asp	Gln	Thr	Leu	Ala	
65				70					75					80		

atc	tac	caa	cag	atc	ctc	acc	agt	ctg	cct	tcc	aga	aat	gtg	atc	caa	288
Ile	Tyr	Gln	Gln	Ile	Leu	Thr	Ser	Leu	Pro	Ser	Arg	Asn	Val	Ile	Gln	
				85					90					95		

ata	tcg	aat	gac	ctg	gag	aac	ctc	cgg	gac	ctt	ctc	cac	ctg	ctg	gcc	336
Ile	Ser	Asn	Asp	Leu	Glu	Asn	Leu	Arg	Asp	Leu	Leu	His	Leu	Leu	Ala	
			100					105					110			

tcc	tcc	aag	agc	tgc	ccc	ttg	ccc	agc	agg	gcc	ctg	gag	acc	ttg	gag	384
Ser	Ser	Lys	Ser	Cys	Pro	Leu	Pro	Ser	Arg	Ala	Leu	Glu	Thr	Leu	Glu	
		115					120					125				

agc	ctg	ggc	ggc	gtc	ctg	gaa	gcc	tcc	ctc	tac	tcc	acg	gag	gtg	gtg	432
Ser	Leu	Gly	Gly	Val	Leu	Glu	Ala	Ser	Leu	Tyr	Ser	Thr	Glu	Val	Val	
	130					135					140					

gcc	ctg	agc	agg	ctg	cag	ggg	gct	ctg	cag	gac	atg	ctg	cgg	cag	ctg	480
Ala	Leu	Ser	Arg	Leu	Gln	Gly	Ala	Leu	Gln	Asp	Met	Leu	Arg	Gln	Leu	
145					150					155					160	

gac	ctc	agc	cct	ggc	tgc	tga										501
Asp	Leu	Ser	Pro	Gly	Cys											
				165												

<210> 3

<211> 166

<212> PRT

<213> Sus scrofa

<400> 3

Met	Arg	Cys	Gly	Pro	Leu	Cys	Arg	Phe	Leu	Leu	Ala	Leu	Ala	Tyr	Leu
1				5					10					15	

LL31 12-0016 Sequence Listings.ST25.txt

Ser Tyr Val Glu Ala Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys
20 25 30

Thr Leu Ile Lys Thr Ile Val Thr Arg Ile Ser Asp Ile Ser His Met
35 40 45

Gln Ser Val Ser Ser Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro
50 55 60

Gly Leu His Pro Val Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala
65 70 75 80

Ile Tyr Gln Gln Ile Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln
85 90 95

Ile Ser Asn Asp Leu Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala
100 105 110

Ser Ser Lys Ser Cys Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu
115 120 125

Ser Leu Gly Gly Val Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val
130 135 140

Ala Leu Ser Arg Leu Gln Gly Ala Leu Gln Asp Met Leu Arg Gln Leu
145 150 155 160

Asp Leu Ser Pro Gly Cys
165

<210> 4
<211> 166
<212> PRT
<213> Sus scrofa

<220>
<221> Protein
<222> (1)..(166)
<223> Amino acid sequence of the entire coding region of porcine leptin
(i.e. signal peptide and secreted protein)

<220>
<221> Protein
<222> (1)..(166)
<223> Amino acid translation of the entire coding region of porcine
leptin (i.e. signal peptide and secreted protein)

<400> 4

Met Arg Cys Gly Pro Leu Cys Arg Phe Leu Leu Ala Leu Ala Tyr Leu
1 5 10 15

LL31 12-0016 Sequence Listings.ST25.txt

Ser Tyr Val Glu Ala Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys
20 25 30

Thr Leu Ile Lys Thr Ile Val Thr Arg Ile Ser Asp Ile Ser His Met
35 40 45

Gln Ser Val Ser Ser Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro
50 55 60

Gly Leu His Pro Val Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala
65 70 75 80

Ile Tyr Gln Gln Ile Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln
85 90 95

Ile Ser Asn Asp Leu Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala
100 105 110

Ser Ser Lys Ser Cys Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu
115 120 125

Ser Leu Gly Gly Val Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val
130 135 140

Ala Leu Ser Arg Leu Gln Gly Ala Leu Gln Asp Met Leu Arg Gln Leu
145 150 155 160

Asp Leu Ser Pro Gly Cys
165

<210> 5
<211> 435
<212> DNA
<213> Sus scrofa

<220>
<221> CDS
<222> (1)..(435)
<223> Nucleotide sequence of the coding region of porcine leptin
corresponding to the secreted porcine leptin protein

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Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys Thr Leu Ile Lys Thr
1 5 10 15

att gtc acc agg atc agt gac att tca cac atg cag tct gtc tcc tcc 96
Ile Val Thr Arg Ile Ser Asp Ile Ser His Met Gln Ser Val Ser Ser
20 25 30

aaa cag agg gtc acc ggt ttg gac ttc atc cct ggg ctc cat cct gtc 144

LL31 12-0016 Sequence Listings.ST25.txt

Lys	Gln	Arg	Val	Thr	Gly	Leu	Asp	Phe	Ile	Pro	Gly	Leu	His	Pro	Val		
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Leu	Ser	Leu	Ser	Lys	Met	Asp	Gln	Thr	Leu	Ala	Ile	Tyr	Gln	Gln	Ile		
	50					55					60						
ctc	acc	agt	ctg	cct	tcc	aga	aat	gtg	atc	caa	ata	tcg	aat	gac	ctg		240
Leu	Thr	Ser	Leu	Pro	Ser	Arg	Asn	Val	Ile	Gln	Ile	Ser	Asn	Asp	Leu		
	65				70					75					80		
gag	aac	ctc	cgg	gac	ctt	ctc	cac	ctg	ctg	gcc	tcc	tcc	aag	agc	tgc		288
Glu	Asn	Leu	Arg	Asp	Leu	Leu	His	Leu	Leu	Ala	Ser	Ser	Lys	Ser	Cys		
				85					90					95			
ccc	ttg	ccc	agc	agg	gcc	ctg	gag	acc	ttg	gag	agc	ctg	ggc	ggc	gtc		336
Pro	Leu	Pro	Ser	Arg	Ala	Leu	Glu	Thr	Leu	Glu	Ser	Leu	Gly	Gly	Val		
			100				105						110				
ctg	gaa	gcc	tcc	ctc	tac	tcc	acg	gag	gtg	gtg	gcc	ctg	agc	agg	ctg		384
Leu	Glu	Ala	Ser	Leu	Tyr	Ser	Thr	Glu	Val	Val	Ala	Leu	Ser	Arg	Leu		
		115					120					125					
cag	ggg	gct	ctg	cag	gac	atg	ctg	cgg	cac	gtg	gac	ctc	agc	cct	ggc		432
Gln	Gly	Ala	Leu	Gln	Asp	Met	Leu	Arg	His	Val	Asp	Leu	Ser	Pro	Gly		
	130					135					140						
tgc																	435
Cys																	
145																	

<210> 6
 <211> 145
 <212> PRT
 <213> Sus scrofa
 <400> 6

Val	Pro	Ile	Trp	Arg	Val	Gln	Asp	Asp	Thr	Lys	Thr	Leu	Ile	Lys	Thr		
1				5					10					15			
Ile	Val	Thr	Arg	Ile	Ser	Asp	Ile	Ser	His	Met	Gln	Ser	Val	Ser	Ser		
			20					25					30				
Lys	Gln	Arg	Val	Thr	Gly	Leu	Asp	Phe	Ile	Pro	Gly	Leu	His	Pro	Val		
		35					40					45					
Leu	Ser	Leu	Ser	Lys	Met	Asp	Gln	Thr	Leu	Ala	Ile	Tyr	Gln	Gln	Ile		
	50					55					60						
Leu	Thr	Ser	Leu	Pro	Ser	Arg	Asn	Val	Ile	Gln	Ile	Ser	Asn	Asp	Leu		
	65				70					75					80		
Glu	Asn	Leu	Arg	Asp	Leu	Leu	His	Leu	Leu	Ala	Ser	Ser	Lys	Ser	Cys		
				85					90					95			

LL31 12-0016 Sequence Listings.ST25.txt

Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu Ser Leu Gly Gly Val
100 105 110

Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val Ala Leu Ser Arg Leu
115 120 125

Gln Gly Ala Leu Gln Asp Met Leu Arg His Val Asp Leu Ser Pro Gly
130 135 140

Cys
145

<210> 7
<211> 145
<212> PRT
<213> Sus scrofa

<220>
<221> Protein
<222> (1)..(145)
<223> Amino acid translation of porcine leptin cDNA corresponding to
the secreted porcine leptin protein

<400> 7

Val Pro Ile Trp Arg Val Gln Asp Asp Thr Lys Thr Leu Ile Lys Thr
1 5 10 15

Ile Val Thr Arg Ile Ser Asp Ile Ser His Met Gln Ser Val Ser Ser
20 25 30

Lys Gln Arg Val Thr Gly Leu Asp Phe Ile Pro Gly Leu His Pro Val
35 40 45

Leu Ser Leu Ser Lys Met Asp Gln Thr Leu Ala Ile Tyr Gln Gln Ile
50 55 60

Leu Thr Ser Leu Pro Ser Arg Asn Val Ile Gln Ile Ser Asn Asp Leu
65 70 75 80

Glu Asn Leu Arg Asp Leu Leu His Leu Leu Ala Ser Ser Lys Ser Cys
85 90 95

Pro Leu Pro Ser Arg Ala Leu Glu Thr Leu Glu Ser Leu Gly Gly Val
100 105 110

Leu Glu Ala Ser Leu Tyr Ser Thr Glu Val Val Ala Leu Ser Arg Leu
115 120 125

Gln Gly Ala Leu Gln Asp Met Leu Arg His Val Asp Leu Ser Pro Gly
Page 9

130

Cys
145

<210> 8
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> DNA
<222> (1)..(504)
<223> Nucleotide sequence of human leptin protein

<400> 8
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